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# Abstracts – Oral Communications

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### Oral Communications

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**1 - CLINICAL AND SOCIAL TRAJECTORIES OF FIRST EPISODE PSYCHOSIS PATIENTS OVER 5 YEARS: THE ROLE OF GENDER DIFFERENCES.**

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**Background:**

Knowing that gender modulates several aspects of psychosis, longitudinal studies on first-episode psychosis patients represent the best methodological approach for gaining a more in-depth understanding of the role of gender on illness course

**Aims:**

We examined the 5-years clinical and social course of a cohort of FEP patients in order to test the following hypothesis: (a) gender-differences in psychopathology found at baseline would persist over 5-years; (b) female patients would show higher levels of insight into illness and subjective quality of life than males all along the study period; (c) male patients would present less needs for care than females, as a result of the increased support provided by families and mental health services.

**Methods:**

A cohort of FEP patients (n=397) was assessed within the Psychosis Incident Cohort Outcome Study (PICOS) framework. Patients were assessed at four time points with a set of standardized measures.

**Results:**

Longitudinal analysis revealed that some, but not all, gender-differences in psychopathology found at baseline persist over a 5-year period. No gender-differences were detected nor in the levels of insight neither in the perceived quality of life over time, with the exception of satisfaction with sexual life that was higher for females. A significant gender-related difference was found in the total functioning needs, that remained higher for female patients all along the study period

**Conclusions:**

These findings shed new light on rarely investigated sociocultural and contextual factors that may account for the observed discrepancy between psychopathology, global functioning, social disability, needs for care of the first years after psychosis onset

**2 – Association between serum prolactin levels and Bone Mineral Density in patients with psychotic spectrum disorder.**

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**Background:**

Patients with schizophrenia have been described to have a 20% shorter life expectancy than general population and a greater vulnerability to physical comorbidity, including osteoporosis. Moreover, some antipsychotics used in schizophrenia, are associated with medical complications, such as hyperprolactinaemia, which is related to several long-term adverse clinical effects, such as, increased risk of osteoporosis in both sexes. Osteoporosis secondary to antipsychotic-induced hyperprolactinaemia receives yet little attention in clinical practice. A better understanding of its causes is needed to help improve patients' medical conditions and quality of life.

**Aims:**

To study the relationship between prolactin levels (PRL) and bone mineral density (BMD).

**Methods:**

A cross-sectional study was performed including 101 patients aged between 18 and 55, with a psychotic disorder, who had been treated with the same antipsychotic at the same dose for the last 6 months. Bone densitometry was performed in order to assess BMD, and Z-scores were given for L2-L4, L2, L3, L4, Femoral-neck and Femoral-stem. Statistical analyses were performed using Pearson correlation, Student T-test, Chi-squared test and linear regression with SPSSv.20 program.

**Results:**

A negative correlation between PRL and Femoral-neck Z-score was observed ( $r=-0.362$ ;  $p=0.006$ ), and between PRL and Femoral-stem Z-score ( $r=-0.331$ ;  $p=0.013$ ). A not statistically significant correlation was found between PRL and lumbar vertebrae scores. A multiple linear regression was conducted to adjust for possible confounding variables (age, gender, FSH, LH, estrogen, testosterone, TSH, tobacco and alcohol use), which were not included in the regression model as significant variables.

**Conclusions:**

A significant association between higher PRL and lower BMD in femoral-neck and femoral-stem was found.

### ***3 – Magnetic resonance spectroscopy gender differences in primary and secondary psychotic populations.***

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#### **Background:**

Often it is difficult to distinguish primary from secondary (e.g. drug use) psychotic disorders clinically. We have investigated magnetic resonance spectroscopy (MRS) as a biomarker to aid in diagnosis. The question around gender/sex differences in these populations, and if these imaging differences remain when taking gender into account has arisen. This has not been well studied.

#### **Aims:**

To perform a gender sub-analysis of MRS data comparing healthy controls (HC) to early phase psychosis (EPP) subjects to abstinent methamphetamine users who had experienced a psychotic episode (METH).

#### **Methods:**

We compared the neurochemical profiles of NAA+NAA-G, total Creatine (tCr), choline containing compounds (Cho) and Glutamate (Glu) obtained by MRS at 3T in the prefrontal cortex, a region including a rostral portion of the anterior cingulate cortex in 29 METH males, 20 METH females, 22 EPP male subjects, 9 EPP female subjects, and 9 female HC and 43 male HC.

#### **Results:**

We found significant differences between EPP males and females compared to METH males and females for levels of NAA + NAA-G ( $p < 0.01$ ).

#### **Conclusions:**

There are neurochemical differences between genders in psychotic disorders that may be related to the differences seen in clinical outcomes.

#### **4 – SEX DIFFERENCES IN OUTCOME IN FIRST EPISODE PSYCHOSIS PATIENTS: A 10-YEAR FOLLOW-UP STUDY.**

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##### **Background:**

Specialized early intervention programs are efficient in treating patients with a first episode of psychosis (FEP) at least after 2 years. However, few studies have examined long-term outcomes, and particularly prognostic implications of the sex of FEP patients.

##### **Aims:**

We aimed to investigate long-term neuropsychological and functional outcomes in female and male 10 years after the first presentation of a non affective psychotic episode.

##### **Methods:**

One hundred thirty-nine FEP patients, 60 women and 79 men were assessed for sociodemographic, clinical and neuropsychological information.

##### **Results:**

Differences in outcome between female and male based on baseline, 1-year, 3-year and 10-year follow-up information were substantial, showing women better outcomes on several variables. Schizophrenia diagnosis was significantly more frequent in men (82% vs. 62%;  $p = 0.01$ ). Women were more likely than men married (45% vs. 24%;  $p = 0.01$ ) and having children (41% vs. 13%);  $p < 0.001$ . Significant differences arose for social function ( $F = 5.469$ ;  $p = 0.022$ ) and processing speed ( $F = 12.66$ ;  $p < 0.001$ ). There was also some weak evidence (albeit not quite statistically significant at  $p < 0.05$ ) for negative symptoms and global neurocognitive function.

##### **Conclusions:**

Women who suffered a first episode of psychosis have better functional and neurocognitive outcomes compared to men. This differential outcome profile is important for clinicians to consider sex specific therapeutic approaches.

### ***5 – Gender Differences in Social Cognition: a Cross-Sectional Study in Schizophrenia Patients of Recent Diagnosis and Healthy People.***

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#### **Background:**

Social cognition is severely disrupted in schizophrenia patients, but gender-related differences in this domain are almost unexplored.

#### **Aims:**

Our main objective was to study the possible gender-related differences in the emotional processing (EP) skills and in the theory of mind (ToM) abilities, both cognitive (CToM) and affective (AToM), in a group of patients with schizophrenia of recent diagnosis and in a control group of healthy subjects. Secondly, we explored from a gender perspective the possible association between the EP and the CToM in the AToM performance.

#### **Methods:**

Forty patients with schizophrenia/schizoaffective disorder with less than 5 years of evolution and forty healthy subjects, matched by age and years of education, were recruited. The Pictures of Facial Affect (POFA) test was used to evaluate the EP. First and second-order false believe tasks were used to evaluate the CToM. The Reading the Mind in the Eyes Test (RMET) was used to evaluate the AToM.

#### **Results:**

Although no significant gender-related differences were found, a trend by which females outperformed males in POFA test ( $p=0.056$ ), both patients with schizophrenia and healthy subjects, was observed. In the lineal regression analysis, Group ( $B=3.864$ ;  $p$

#### **Conclusions:**

Our results suggest that the illness is the main factor related to the deficit in social cognition, particularly in the ToM. However, the influence of female gender in the EP skills should not be neglected, neither in schizophrenia patients nor in healthy people.

**6 - Clinical personality traits in a high risk sample compared with a healthy control sample by gender.**

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**Background:**

The role of personality in the development of psychotic disorders still remains far from defined and there is no study considering gender.

**Aims:**

To compare clinical personality traits in a high risk (HR) sample with a matched healthy control (HC) by gender and followed it up for 3 years in order to study conversion to psychosis.

**Methods:**

40 help-seeking individuals (21 females, 19 males), aged 18-35, referred to an early intervention centre that met criteria for HR, and a matched HC sample were assessed with the Millon Multiaxial Inventory-III. Fisher's exact test was employed to compare frequency of clinically significant personality traits between both groups within gender.

**Results:**

Personality traits were significantly higher for avoidant ( $p=0.003$ ), depressive ( $p=0.000$ ) negativistic ( $p=0.017$ ), schizotypal ( $p=0.008$ ), and borderline ( $p=0.000$ ) in the male HR sample but narcissistic was significantly lower ( $p=0.020$ ) for this sample. Conversely, female's HR sample scored significantly higher for schizoid ( $p=0.009$ ), avoidant ( $p=0.004$ ), depressive ( $p=0.000$ ), negativistic ( $p=0.009$ ), masochistic ( $p=0.000$ ), schizotypal ( $p=0.000$ ), borderline ( $p=0.000$ ) personality traits than their counterparts. In relation to conversion to psychosis only the 5% converted (9.5% females).

**Conclusions:**

Certain clinically significant personality traits may act as contributing factors for a HR state in both genders. In general, women's clinical personality traits are more prevalent than their control counterparts. These results lead to the conclusion that gender should be taken into account when considering personality in HR.

### **7 – Clozapine placental transfer, neonatal half-life elimination and outcomes.**

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#### **Background:**

Clozapine is an atypical antipsychotic used in the treatment of schizophrenia and the maintenance of clozapine during pregnancy is recommended. Clozapine accumulation in foetal serum possibly contributes to increased child complications.

#### **Aims:**

To determine the placental transfer, half-life elimination in newborn and child outcome after prenatal clozapine exposure.

#### **Methods:**

Three white women were treated at the outpatient Perinatal Psychiatry Program Barcelona-Clinic during pregnancy with clozapine monotherapy (M-2) or politherapy (M1 and M3). The third mother was attended during 2 pregnancies (M3-1 and M3-2). Clozapine serum level and white blood cell count were determined in mother-infant pairs at the day of delivery, 48-72 hours postpartum and weekly after delivery. Neonatal outcomes were reviews of pediatric records. Serum concentration of clozapine was measured by a validate high-performance liquid chromatography method. The limit of quantification (LOQ) was 5 ng/mL.

#### **Results:**

Three pregnancies were uncomplicated, mother (M2) developed gestational diabetes controlled with insulin, 2 ended in spontaneous birth and 2 in elective cesarea. One newborn (M3-1) needed neonatal resuscitation in the delivery room; the neonatal adaptation of other three newborns was uncomplicated. The mean UCB/IMB ratio was 49 %. The neonatal half-life of clozapine was 92.34 ( $\pm$  18.51) hours. There were no neonatal seizures and the white blood cell count were normal.

#### **Conclusions:**

Clozapine crosses placental barrier partially. In neonates, clozapine is eliminated with a half-value of 87 h, compared with 14 h in adults. In our sample, there were not seizure or agranulocytosis in the newborns.

***8 – Pathogenic mitochondrial DNA mutations present in schizophrenia patients are associated with elevated levels of lactate that are higher in females.***

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**Background:**

Mitochondrial dysfunction has been widely described in psychiatric disorders including schizophrenia. Mitochondria are key organelles necessary for energy production among other functions. The mitochondrial DNA (mtDNA), a 16,569-bp, double-strand, maternally inherited molecule contains the genetic information necessary for the synthesis of 13 essential polypeptides of the mitochondrial respiratory chain. Mitochondrial respiratory alteration is associated with elevated lactate levels.

**Aims:**

To identify pathogenic mtDNA mutations in schizophrenia subjects related to mitochondrial function.

**Methods:**

We studied schizophrenia subjects with an apparent maternal transmission of the disease (n=30), schizophrenia subjects without familial antecedents of psychosis (n=30) and control subjects (n=30). Each group consisted of 21 males and 9 females; mean age in each group of 42 years (F=0.433; p=0.650). Participants conducted a lactate stress test in a bicycle ergometer. The mtDNA sequence was obtained by mtDNA-targeted Next Generation Sequencing and a multi-parametric workflow was used to identify putative pathogenic variants.

**Results:**

We have identified 16 putative pathogenic variants present in 13 patients, 9 males and 4 females that were not present in the 30 healthy subjects. There were not differences between the two groups of patients according the number of pathogenic variants. No differences in the lactate stress test was observed between male and female controls, however female patients exhibited higher lactate increments than male patients and the differences were higher in subjects carrying a pathogenic mutation.

**Conclusions:**

Pathogenic mtDNA mutations are present in schizophrenia subjects but not associated to mother's disease. The presence of mtDNA is associated with higher lactate levels in the lactate stress test.

***9 – Insight and severity of illness. What influence does gender have?. A one-year longitudinal study in a sample of patients with a first psychotic episode.***

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**Background:**

There has been reported a lower incidence and prevalence for women in schizophrenia and also a better performance in relation to men. Insight has been found less altered in female patients and could play a role. Nevertheless there are still controversies regarding the influence of gender in psychosis.

**Aims:**

To conduct a study focusing on gender and awareness of disease measured by the "Scale to Assess Unawareness of Mental Disorder" (SUMD), analyzing correlations with the severity of disease measured by the "Positive and Negative Syndrome Scale" (PANSS).

**Methods:**

This is a one-year longitudinal study of a sample of 256 patients attended in the Hospital del Mar First-Episode Psychosis Unit. For the assessment of insight and severity of disease, the SUMD and the PANSS scales were used respectively. Statistical analysis was performed using T test for independent samples, U of Man-Whitney and linear regression in SPSS version 20 for mac.

**Results:**

There was a decrease along follow-up in the scores of both scales being significantly more prominent for women (p).

**Conclusions:**

Being woman was related to greater improvement in insight and severity of disease, however in men the correlation between both variables was more significant specially in general psychopathology section of PANSS. It is still controversial what role these differences play, being necessary to carry out more studies in the area.

## **10 – Gender differences in delusional disorder: a systematic and narrative review.**

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### **Background:**

Gender differences in mental disorders have been well-documented. Particularly, several studies have supported the oestrogen protection hypothesis in schizophrenia. However, few research has been focused on delusional disorder (DD).

### **Aims:**

Our goal was to assess whether gender differences exist among DD patients in sociodemographic, clinical features and outcomes.

### **Methods:**

A systematic computerized literature search was conducted in Pubmed and Scopus databases (1990-April 2017), following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) statement. Reference lists were manually checked to find additional studies. The following search terms were used: Gender, Delusional Disorder and Paranoia. Studies were only included if they met our inclusion criteria. A narrative analysis was conducted for the included studies.

### **Results:**

Forty-five studies were initially identified, of which 12 met our inclusion criteria. DD women showed a later age at onset and higher age at first psychiatric appointment compared to men. The vast majority of studies reported no gender differences in the content of delusions, whereas others found erotomanic type more frequent in women, in particular for those with premenopausal onset. DD men presented a higher frequency of substance abuse and displayed lower functionality than women. No gender differences were found regarding depressive symptoms, hallucinations, suicidal ideation and behaviour, and clinical outcomes.

### **Conclusions:**

DD research suggest gender differences in age at onset and other clinical outcomes, which is in line with the oestrogen hypothesis in schizophrenia. Most of the studies suffer from methodological problems, a fact that limits the possibility to achieve more robust conclusions.

**11 - "Women Only" homeless shelter: a low threshold chance to reach out for untreated women suffering from schizophrenia.**

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**Background:**

In Vienna we find a high prevalence of women suffering from schizophrenia among homeless women . They are especially prone to be abused or in other ways victimized.

**Aims:**

Secure circumstances for all homeless women, including even severely psychiatrically sick women support better quality of life and stabilizing condition . Female psychiatrists offer liaison psychiatry consulting for the women and the team, thus creating a trustworthy atmosphere and try to lead the schizophrenic women to regular treatment and care.

**Methods:**

Low threshold options for free food, washing machines and shelterapartments are attractive even for severely ill and untreated paranoid women. They get to know the female psychiatrist in a casual "by the way" situation. Constant respectful staying in touch, counseling and advising the team how to cope with strange behaviour and difficult situations adds to a new picture of the psychiatrist being a trustworthy everyday woman. Over time the women may accept treatment as an option and furtheron be guided into the regular socialpsychiatric care system.

**Results:**

We accompanied a number of women, gaining their confidence and leading some of them into regular treatment. Two women (their cases will be presented) could be rehabilitated into regular housing, contact with kids.

**Conclusions:**

As prevalence of schizophrenia is high among homeless women, safe "female only" environment should be provided. Liaison psychiatry is a chance to reach these patients and guide them to accept treatment.